

Byeong Cheol Lee

✉ bc6817@gmail.com | 🏠 https://2btlFe.github.io | 🌐 2btlFe.github.com | 📄 byeong-cheol-lee-637311202

Research Interests

Computer Vision, Open-Vocabulary Semantic Segmentation, Domain-Generalized Semantic Segmentation; current focus on Open-Vocabulary Dense Prediction (Semantic Segmentation, Object Detection, Zero-Shot Segmentation via VFM), Feature Upsampling.

Education

Sungkyunkwan University (SKKU), South Korea

Mar. 2025 – Present

M.S. in Artificial Intelligence

Advisor : Prof. Jae-Pil Heo

Sungkyunkwan University (SKKU), South Korea

Mar. 2019 – Feb. 2025

B.S. in Electronic Electrical Engineering and Computer Science (Double Major)

GPA: 4.08 / 4.5; Honors: SKKU Magna Cum Laude

Publications

Looking Beyond the Window: Global-Local Aligned CLIP for Training-free Open-Vocabulary Semantic Segmentation

ByeongCheol Lee, Hyun Seok Seong, Sangeek Hyun, Gilhan Park, WonJun Moon, and Jae-Pil Heo

IEEE/CVF Conference Computer Vision and Pattern Recognition (CVPR), 2026

PDF-GS: Progressive Distractor Filtering for Robust 3D Gaussian Splatting

Kangmin Seo, MinKyu Lee, Tae-Young Kim, ByeongCheol Lee, JoonSeoung An, and Jae-Pil Heo

IEEE/CVF Conference Computer Vision and Pattern Recognition (CVPR), 2026 [Findings]

Research Projects

Research on improving intelligent command and control capabilities based on generative AI and real-time 3D digital twin construction

Jul.2024 – Present

- Supported by the Institute of Information & Communications Technology Planning and Evaluation (IITP) under the Ministry of Science and ICT.
- Role: Project member (Semantic Segmentation Developer, 3D Reconstruction Developer)
- Keywords: Drone Imagery based 3D Reconstruction / COLMAP & 3D Gaussian Splatting / Remote-Sensing Image Semantic Segmentation / Open-Vocabulary Semantic Segmentation

Detection of AI-based Fake Investigation and Tip Videos

Oct.2023 – May.2024

- Supported by Korean national police agency & Ministry of Science and ICT (\$2.2M in total)
- Role: Project member (Forgery Image Developer, Research Data Manager)
- Keywords: Deepfake detection / Video forgery detection / Video inpainting / Video-to-video translation

Awards and Honors

2025 - Present

Scholarship: “Graduate Excellence Scholarship” (total : \$4,200)

2019 - 2025

Scholarship: “Academic Scholarship” (total : \$2,000)

2023

Awards: “2023 SKKU Algorithm Programming Contest” (Top 10%, prize : \$150)

Volunteer Services

The Korea Robot Volunteer (Non-profit organization)

Mar.2016 – Feb.2019

- Role: Mentor (Line Tracing with LEGO Mindstorm)
- Activities: Volunteer work in robotics education for local youth and overseas robotics education volunteer in Mongolia

Experience

Military Service on Republic of Korea Air Force (ROKAF)

May.2021 – Feb.2023

- Role: Sergeant
- Performed radar maintenance and monitoring duties
- Conducted routine inspections and troubleshooting for radar equipment

Smart Maritime Logistics ICT Mentoring & Startup Audition

May.2020 – Dec.2020

- Role: Co-Founder & Developer
- Developed software solutions including Kalman filter based GNSS development, and Android app development
- Handled accounting and financial management responsibilities as Co-Founder

Technical Skills

Programming languages: Python, C/C++; **Frameworks / Tools:** Pytorch, Git, Docker, Slurm; **Editors / Shell:** VSCode, Vim).